

**Southward migration of the Red Admiral *Vanessa atalanta* (L.)
(Lep.: Nymphalidae)**

During many years in Sussex, I was familiar with the southward movement of Red Admirals *Vanessa atalanta* in autumn. This is a well-recognised phenomenon (Heath, J., Pollard, E. & Thomas, J.A., 1984. *Atlas of butterflies in Britain and Ireland*. Viking, Harmondsworth). However, I was surprised to observe a similar passage 500 miles further north, in Banffshire.

Towards the end of September 1999, Red Admirals began moving south through my garden whenever conditions allowed. On 22 September 1999, a balmy autumn day, there were three in quick succession. It seemed a good opportunity to gather actual data, so (purely in the interests of science, you understand) I decided to sit on the patio in the afternoon sun and count butterflies rather than varnish the utility room windowframe.

The temperature was 18°C, with 100% hazy sun. Wind was Beaufort force 2 south-easterly, too light to deflect the butterflies from their chosen path. Observations lasted precisely one hour, from 13.08 – 14.08 BST. Viewing conditions were excellent: bright, but without harsh shadows or glare. All butterflies within a 50 metre wide strip were recorded. The first ten metres of this comprised garden, the rest being closely grazed pasture providing a lawn-like background, so that even the furthest butterflies stood out. Binoculars were on hand to confirm identity, but were rarely needed.

During the one hour period, 75 Red Admirals were seen, of which 74 flew south and one flew north (no comment!). All those travelling south were within a narrow arc between due south and south-west, with most flying south-by-south-west. Over the open pasture, all were one to two metres above the ground; through the garden they were up to four metres. The speed of flight varied. Most were cruising, with a few merely drifting and floating, while others flew rapidly and purposefully. However, in all cases their flight was deliberate and constant. I have no doubt that this was a genuine directional migration. The only other butterfly seen was a Painted Lady *V. cardui* loitering in the garden, the first of the year.

The wider area consisted of gently sloping mixed farmland at 160 metres above sea level, with no obvious topographical features to concentrate the butterflies. Movement appeared to be on a broad front. Ordiqhill is only 11 kilometres from the coast of the Moray Firth to the north, so whether all the Red Admirals had originated from that relatively narrow strip, or some had come from further afield, is uncertain. However, although few primary immigrants reach here in early summer they seem to breed very successfully, and on average I see several times as many in autumn as I used to see in Sussex. M. R. Young (pers. comm.) made the same observation in relation to Aberdeenshire and Herefordshire. It is unlikely that the climate is more favourable for such a southern species in north-east Scotland, so my own hypothesis is that parasitoids which attack Red Admirals in the south are absent (perhaps shared with related nymphalids like Peacock *Inachis io* and Comma *Polygonia c-album*, not resident in north-east Scotland).— ROY LEVERTON, Whitewells, Ordiqhill, Cornhill, Banffshire AB45 2HS.